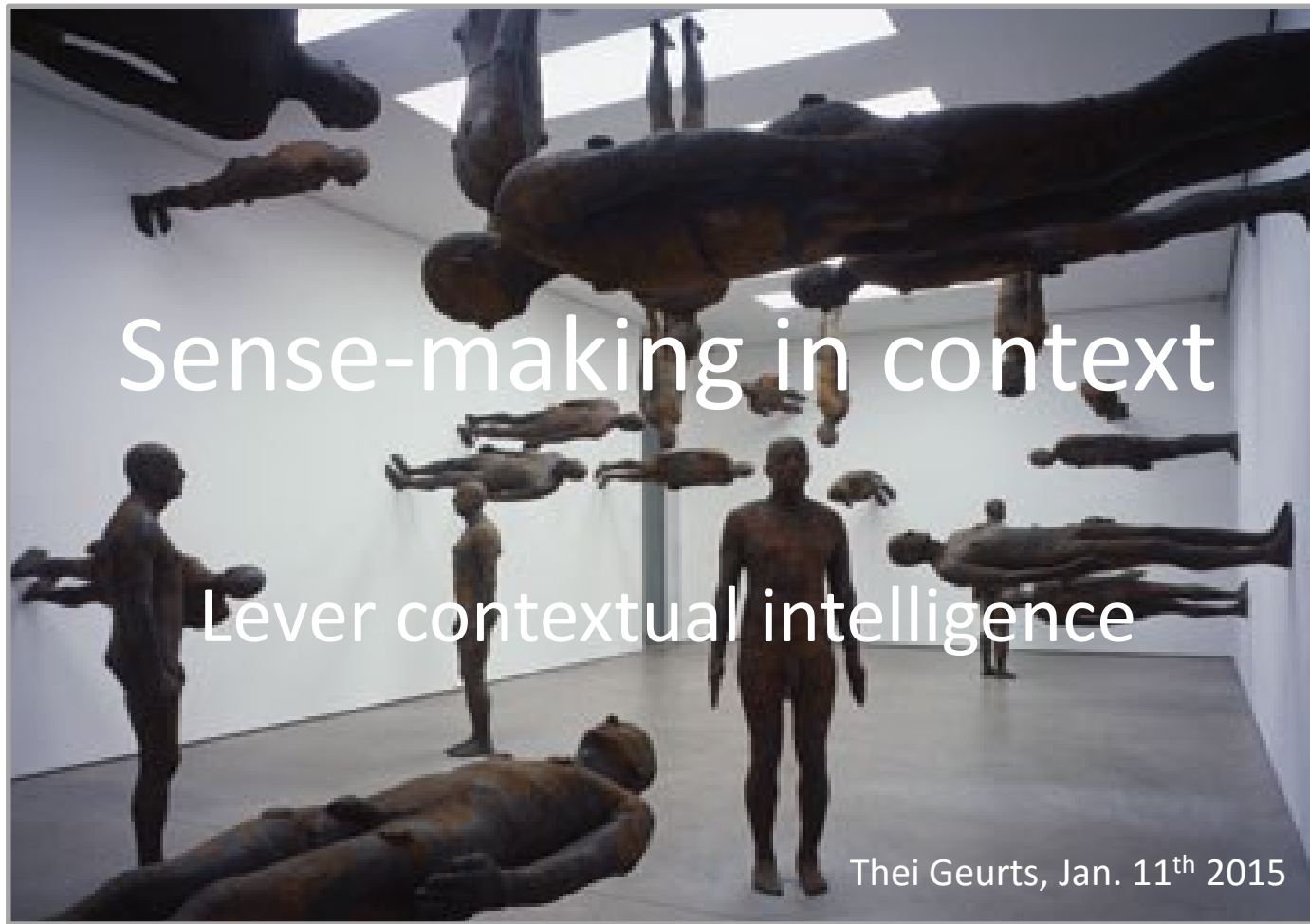




Sense-making in context

Lever contextual intelligence

Thei Geurts, Jan. 11th 2015

Contextual intelligence

- Contextual intelligence deals with the practical application of knowledge and information to real-world situations, and can be defined as:
“the capacity to exploit business moments and operational events in a way that enables to make informed decisions and take effective action in varied, changing and uncertain situations”.
- Context is the background in which an event takes place. Contexts come in various forms and involve any set of circumstances surrounding an event.
- Context provides for deeper situational awareness which drives better decisions, more effective actions, and new sources of client value.
- The future business value will accrue to those who are able to lever contextual intelligence and build sustainable intelligent enterprises and ecosystems.

How to choose a suit?



Context dependent

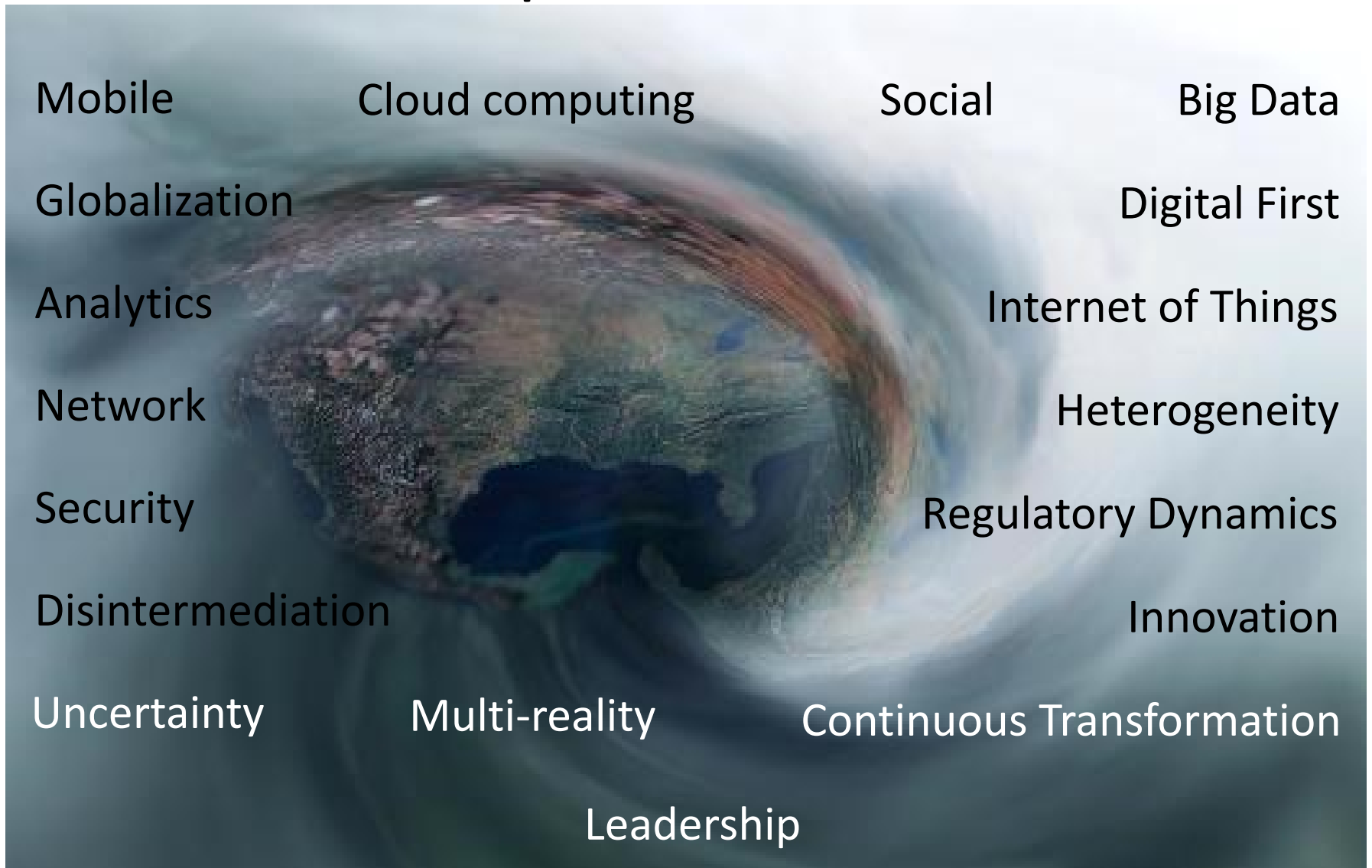
Event type
Personal preference
Availability parts
Time of year/day
Location
Norms
Formal demands
Intuition
Advice
.....

Quote (Forrester)

Five accelerators will define the business landscape in 2020:

1. Businesses – and government – will get obsessive about customers.
2. Operational excellence matters now more than ever.
3. Regulatory and competitive pressure will force constant change.
4. Finding and leveraging talent will be universal and strategic.
5. IT vanishes in the business.

The perfect storm



Winning digitally

WINNING DIGITALLY

Success in the new digital economy will be determined by one thing: how organisations transform a digital strategy into business.

Gartner
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KEEP CHALLENGING™



Matt Davies @mattdavies_uk · 10m

Top skills for the next 5 years #GartnerSYM #UpdateYourCV

Now

Mobile
User Experience
Data Sciences

2017

Smart Machines
Internet of Things
Robotics
Automated
Judgment
Ethics

2020

System Integration
Digital Architects
Regulatory
Risk



Xavier Boileau @xboileau · 12m

Smart machines will invade the business #GartnerSYM from financial analysis, to school, to non industrial robots...



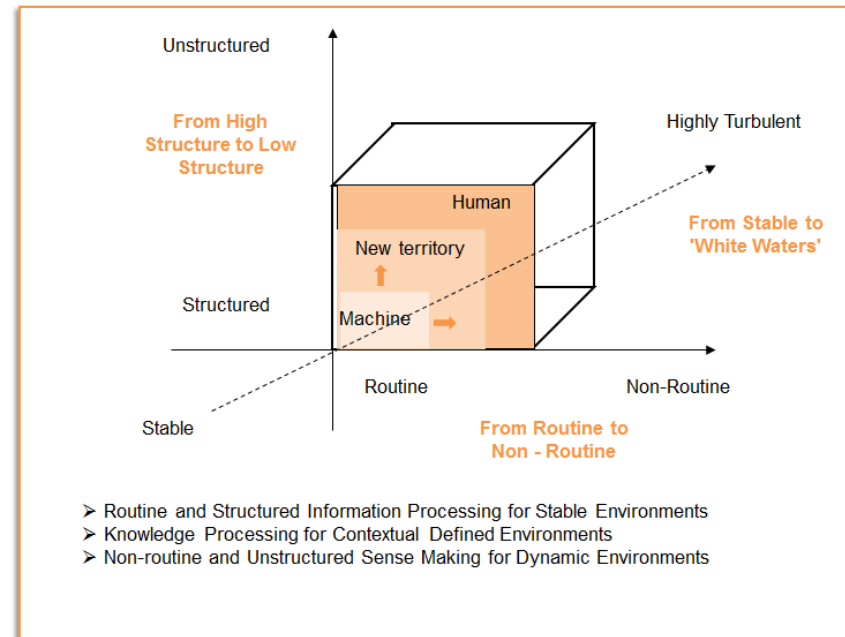
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Smart machines #GartnerSYM



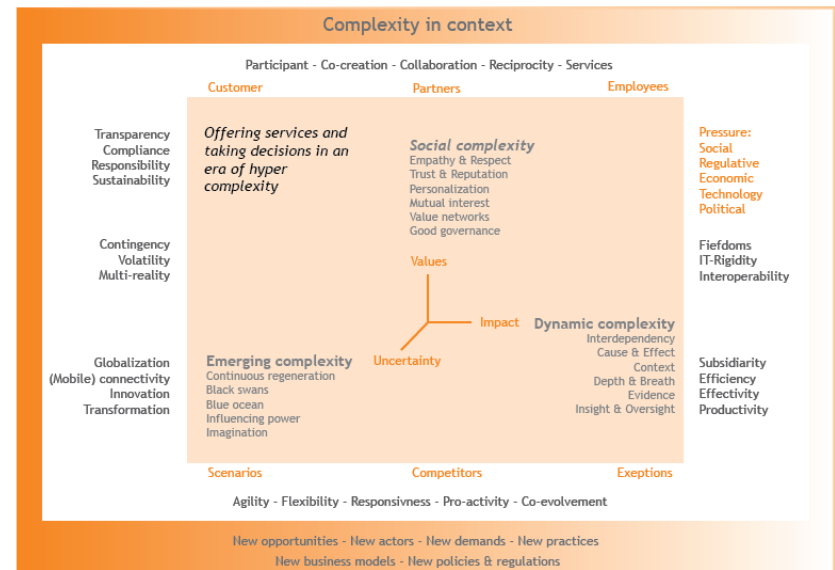
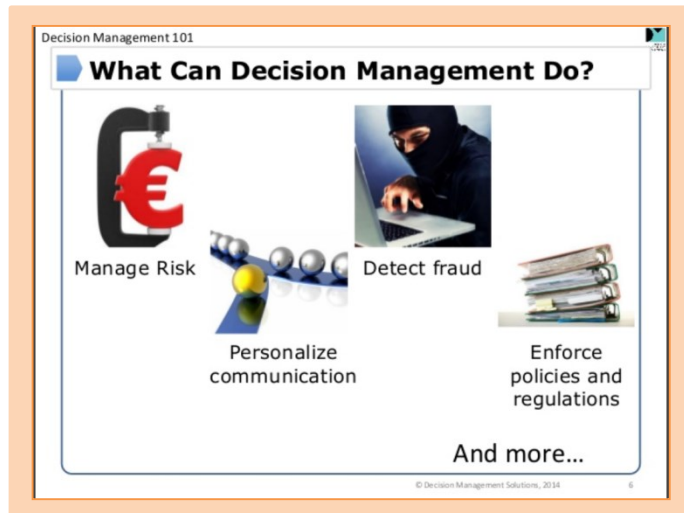
The Internet of Things acts as a catalyst

- The barriers of information processing have to be moved to include knowledge processing and enable organizations to turn data into actionable information.
- New opportunities for innovation and service transformation will raise significant challenges, like:
 - Partnership relationships moving from primarily 'one to one' to federated 'many to many' relationships.
 - An unprecedented explosion in the volume of data to manage and make decisions from – with decision-making increasingly becoming automated at the same time.
 - Increasing complexity of networks, devices and apps arising from the burgeoning availability of sensors.
 - Exposure to a greater vector of security and privacy risks arising from the sheer number of parties and connections involved in service delivery.
- This set of changes will not impact all parts of society simultaneously. The IoT is not one wave of technological change, but many overlapping waves that are impacting at different rates in different sectors and markets.



How to make decisions and execute complex tasks?

- In an increasingly dynamic and uncertain world, the information processing capacity of organizations to execute complex and knowledge-intensive tasks runs up to its limits. Traditional approaches and methods are not satisfactory anymore.
- To fully exploit business opportunities and react to, and adequately anticipate on, new events, dates, goals, facts and circumstances, an approach is needed that systematically applies cognitive processing by human and system operators in a single process.
- Decision making has to be 'reinvented'.

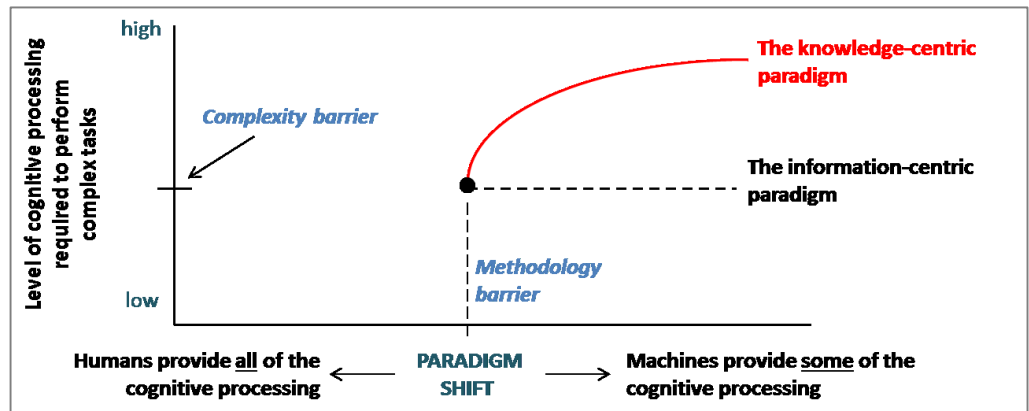


The information-centric paradigm holds us back

- Current systems (designed under the information-centric paradigm) connect people to people and people to information.
- They are not capable of handling the proliferation of sensors and devices and the explosive growth in structured and unstructured data in a way that effective decision making is supported.
- Even so-called systems of engagement fail to facilitate end-to-end spontaneous networks in the decision process.
- Moreover, the change dynamics in the information and decision making space are staggering.

The knowledge-centric paradigm connects intelligence

- Future systems (designed under the knowledge-centric paradigm) will connect intelligent agents that work cooperatively to solve problems. Intelligent agents may be people and/or machines.
- The knowledge-centric paradigm shifts the focus of system design from computer-oriented features to the meaning of those features in terms of the people, places, things, and events in the world outside the computer.



Smart workers will help to cope with the volume, variety and velocity of data



"Я твой слуга" - "Я твой работник"
(*"I am your servant" – "I am your worker"*)



Gartner follows

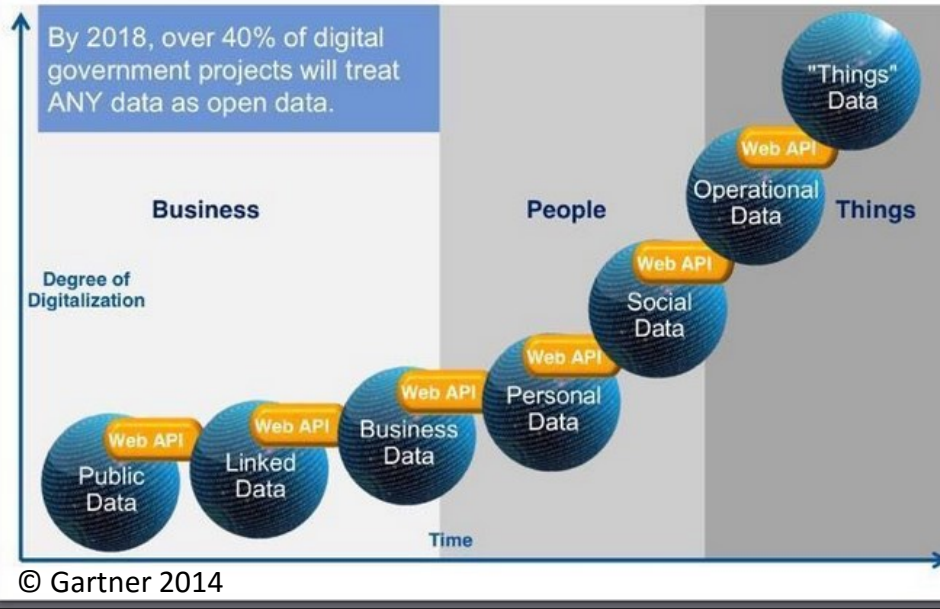


Anna Maria Nenna @anenna · 22m

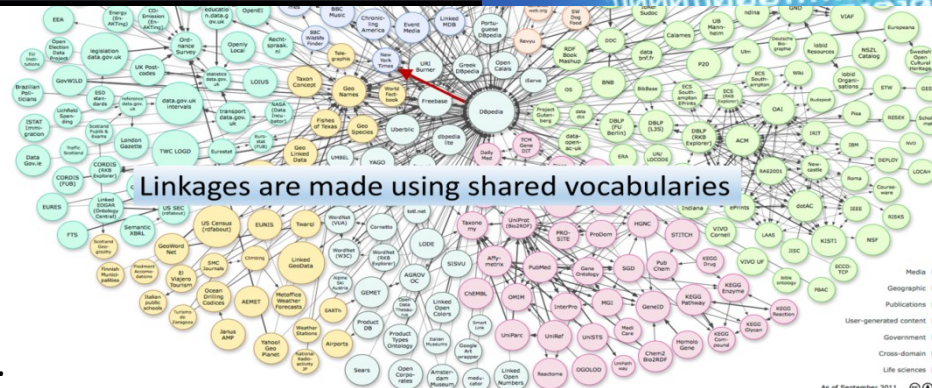
#GartnerSYM Smart robots will perform 1 in 3 jobs in the future. By 2018 we will need 50% less process based people.

Open and linked data are also part of the equation

Open ANY Data: Open Is the New Default



LOD 2 project



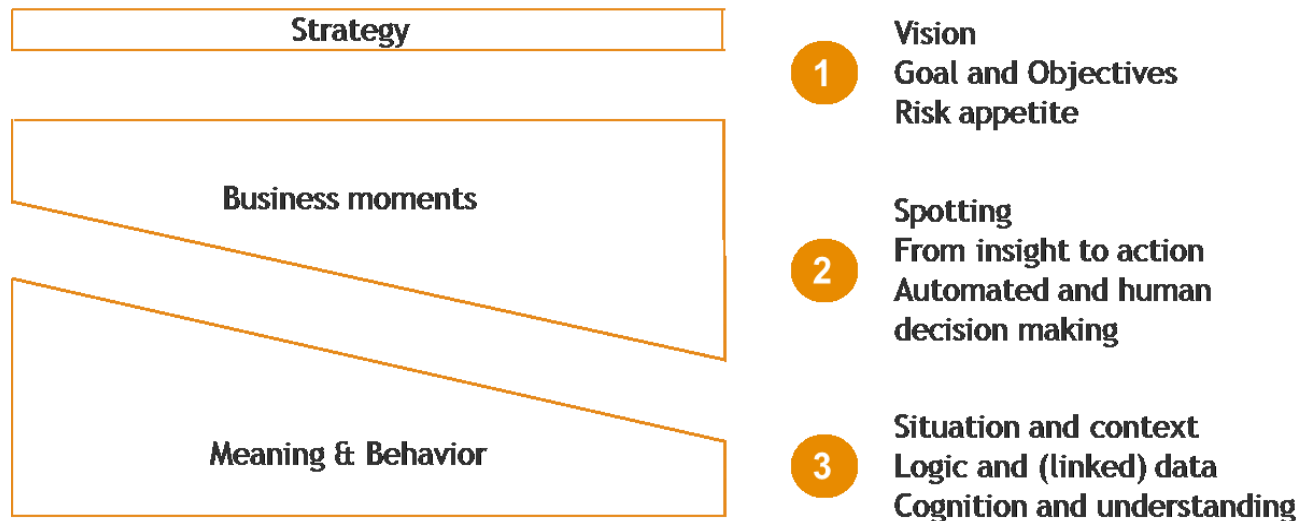
Open data provide
a layer we can reason about.

But..... fundamentally, the real challenge is de-robotizing

- In the next decade smart machines will enter offices, factories, and home in numbers we have never seen before.
- The Internet of Things leads to a world where physical objects are seamlessly integrated into the information network, and where the physical objects can become active participants in business processes.
- As these machines replace humans in some tasks, and augment us in others, their largest impact may be less obvious: their very presence among us will force us to confront important questions.
- What are humans uniquely good at? What is our comparative advantage? And what is our place alongside these machines?
- We will have to rethink the content of our work and our work processes in response. *(And consequently also the way we educate and learn).*

Making sense in context ...

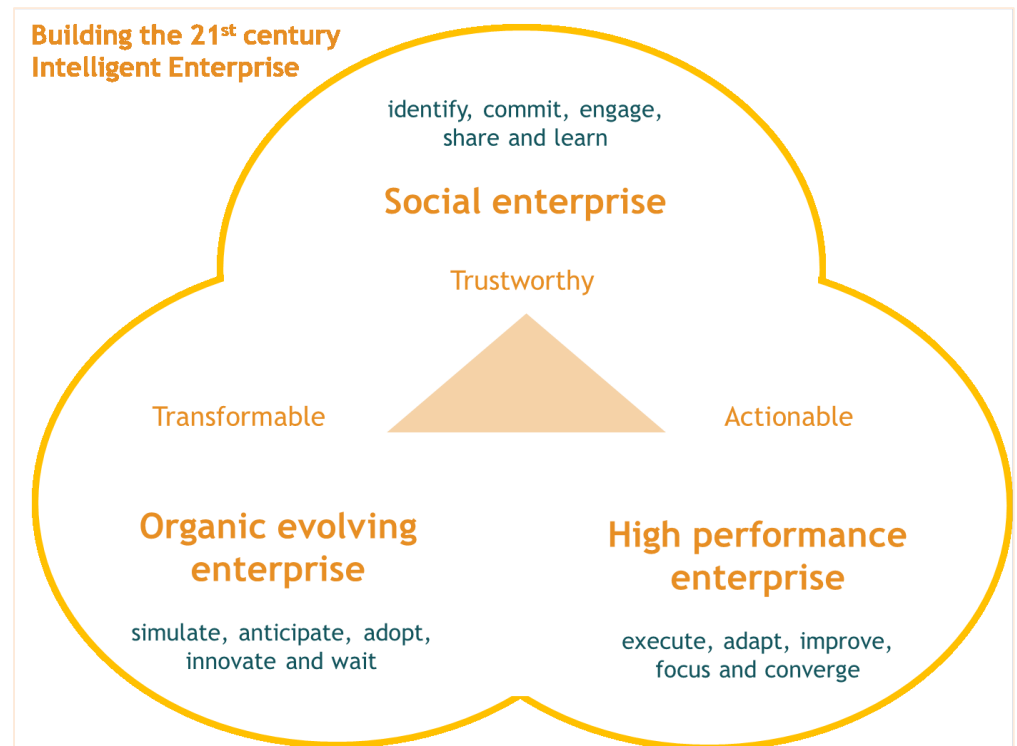
- Higher level "sense-making" skills will be increasingly valued as humans leverage data to create unique insights critical to decision making and to exploit business opportunities in line with the strategy of the organization.



- Contextual intelligence and context aware computer systems help to recognize, represent, and respond to the meaning of the data and the goals of the users. This requires the ability to think and reason beyond the initial information provided.

Building the intelligent enterprise

- The intelligent enterprise brings insight to the point of decision. It enables to take decisions in an era of hyper-complexity (the fusion of social, dynamic and emerging complexity).
- The intelligent enterprise excels not only in the social domain, but is high performing and future-proof as well. It can evolve with developments and is able to deal with uncertainty.



Building the 21st century intelligent enterprise requires – among others - leveraging contextual intelligence.

Reimagining work, process, leadership and transformation

*“We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time”*

T. S. Eliot (in *Little Gidding*, 1942)

Reimagining work

- The new way of working brings together multiple disciplines in a coherent and meaningful context to realize business goals. It gives a reason for all actors to consult, communicate, cooperate and coordinate; in short to collaborate.
- Customer and other events become the unit of work organization and management.
- Decision networks evolve from rigid to spontaneous decision networks.
- Case management becomes omnipresent as a means of aggregation, cooperation, coordination and communication.
- End-to-end streams prevail.
 - The customer is an actor and part of the equation.
 - Life cycle matters.



Reimagining process

- Think in, and support conversations.
- Become able to manage process differences.
- Separate Know and Flow.
 - A decision network is not a flow.
 - Decisions are based on concepts and their relations (context).
- Create goal driven processes.
 - Find the shortest rout to the destination based on the latest information available.

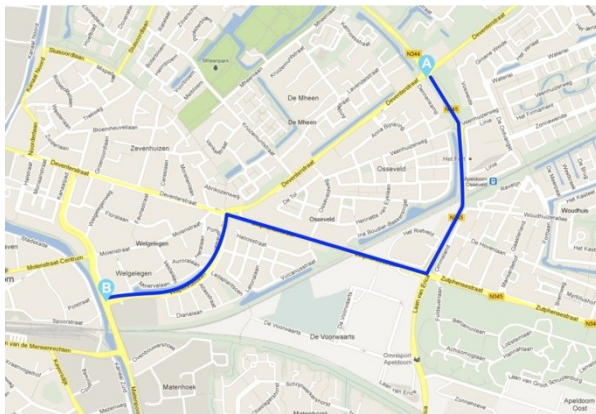
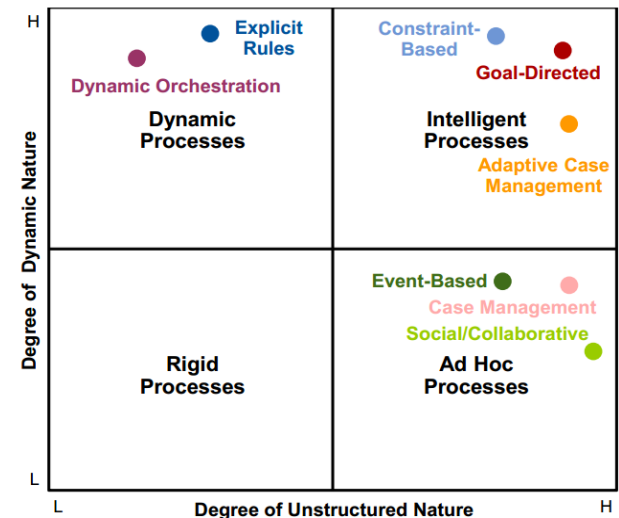


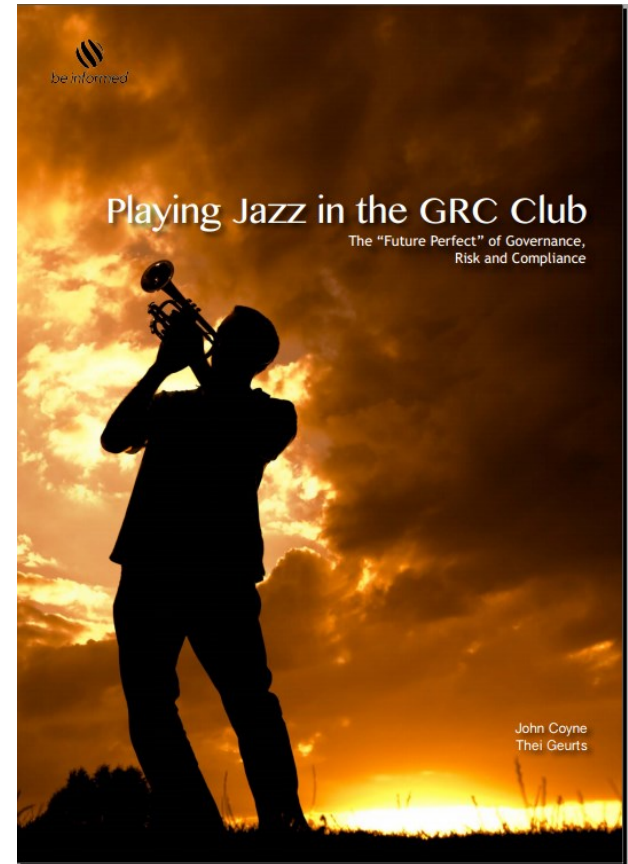
Figure 1. Axis of Adaptability



Source: Gartner (May 2013)

Reimagining leadership in a knowledge world

- Complex and shifting situations require flexible and contextual responses.
- Leadership is about building relationships and fostering engagement.
- Leaders engage people around wicked problems.
- Leaders inverse control and act as a host (in several roles).
- Leaders are able to play Jazz.



Reimagining transformation

- *“If you want to build a ship, don't drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea.” ~ **Antoine de Saint-Exupery***
- Make change something to long for and offer instruments that work and are trusted. Enable people to deal with their personal immune system.

How to bring insight to the point of decision?

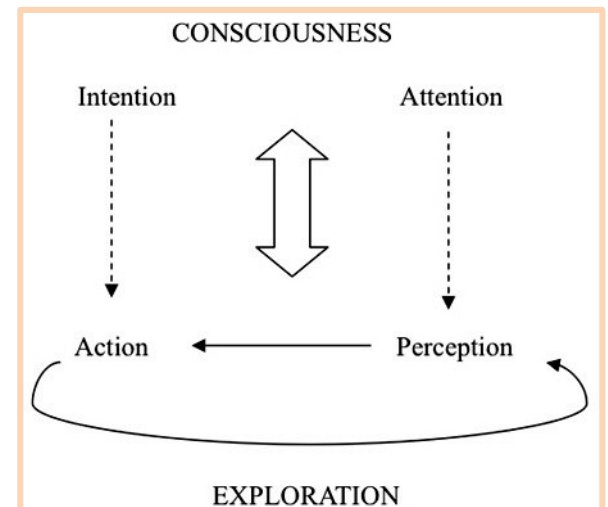
- Develop a Business Operating System, that:
 - Supports contextual reasoning
 - Makes you an Entrepreneur of meaning
 - Provides actionable knowledge (as a service)
 - Puts purpose into practice
 - Accelerates the insight to action cycle
- Select a Platform, that:
 - Is human centric
 - Supports intelligent business operations
 - Accommodates change and heterogeneity
 - Enhances your regulatory capability
 - Acts as a transformation vehicle
- Apply a Technology, that:
 - Is semantic to the core
 - Separates logic from the flow
 - Separates logic from data
 - Supports strict and spontaneous decision networks
 - Supports dynamic case management

Benefit from semantic technology

- Semantic systems are computer systems that recognize, represent, and respond to the meaning of the data and the goals of the users.
- Semantic technology make heterogeneous systems interoperable despite differences in implementation.
- The ultimate goal of semantic systems is:
 - Help people interact with computers in a more human way.
 - Integrate all software around the semantics of the data.
 - Enable legacy systems to participate in the integration.

Where to start?

- Choose consciously where to pay attention by bringing intention to the act of attending.
- Design criteria might then include:
 - a degree of simplicity to facilitate comprehension
 - a degree of complexity to encompass more complex and subtle forms
 - a degree of symmetry to facilitate memorability
 - a capacity to encompass forms of attention which might otherwise be considered incompatible (and susceptible to being "designed out")
 - suggestive of various directions of development, potentially anticipating more sophisticated/subtle forms of attention
- Choose a 'Grow live' approach.
- Be cautious for innovation blockers / decelerators.
(Quote: "*SharePoint is to Knowledge Management, what Sick Stigma is to Innovation*" (David Snowden).)
- Don't forget to organize the provisioning value chain.



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